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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,220	11/20/2001	Terence J. Knowles	13051US03	6206

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MCANDREWS HELD & MALLOY, LTD
500 WEST MADISON STREET
SUITE 3400
CHICAGO, IL 60661

EXAMINER	
NGUYEN, KIMNHUNG T	
ART UNIT	**PAPER NUMBER**
2677	

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/998,220	KNOWLES ET AL.	
	Examiner	Art Unit	
	Kimnhung Nguyen	2677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Amenment filed on 12/15/05*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-26 and 28* is/are rejected.

7)☒ Claim(s) *27* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Application has been examined. The claims 21-28 are pending. The examination results are as following.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 21-26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chatigny et al. (US 5,673,041) in view of Selig et al. (US 6,492,978).

Regarding claim 21, Chatigny et al. discloses in figs 1-2, a feedback mechanism for an acoustic wave switch (see abstract) having a touch sensitive surface (touch region 24) comprising a surface (18) overlaying the touch sensitive surface of the acoustic wave switch, the surface (18) in an unactuated position being spaced from the touch sensitive surface (24) of the switch, and an acoustic wave absorbing material (see finger at the surface 18 by absorbing some of the ultrasonic energy, see col. 4, lines 10-15) disposed between the surface (18) and the touch sensitive surface such that in response to a force acting on the substrate (16), the surface (18) contacts the absorbing material, and absorbing material contacts the touch sensitive surface of the acoustic wave switch with sufficient pressure to actuate the acoustic wave switch (see col. 4, lines 10-19).

However, Chatigny et al. does not disclose a deformable dome overlaying the touch sensitive surface. Selig et al. discloses in figs 1-4 that a touch screen (16) having a dome (see key (24, fig. 1, 4) disposed over the touch screen (16, fig. 4, see col. 5, and lines 48-51).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the using of the key disposed over the touch screen as taught by Selig et al. into the system of Chatigny et al. because this would be suitable modified for this type of touch screen to interrupt the acoustic signal by using the individual keys and also provide tactile feedback as desired to the user (see col. 8,lines 25-29).

Regarding claims 22-23, Chatigny et al. further discloses the acoustic wave absorbing material is mounted on the surface is mounted on a surface (see finger at the surface 18 by absorbing some of the ultrasonic energy, see col. 4, lines 10-15). However, Chatigny et al. does not discloses the dome is overlaying the touch surface.

Selig et al. discloses in figs. 1-4, a dome (24) is overlaying the touch surface (touch screen 16, see key 24, fig. 4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the using of the key disposed over the touch screen as taught by Selig et al. into the system of Chatigny et al. because this would be suitable modified for this type of touch screen to interrupt the acoustic signal by using the individual keys and also provide tactile feedback as desired (see col. 8, lines 24-29).

Regarding claim 24, Chatigny et al. discloses in figs 1-2 a feedback mechanism for an acoustic wave switch having a touch sensitive surface (touch region 24) comprising: a surface (18) overlying the touch sensitive surface (24) of the acoustic wave switch and an acoustic wave

absorbing material mounted on the surface (see finger at the surface 18 by absorbing some of the ultrasonic energy, see col. 4, lines 10-15), the acoustic wave absorbing material being spaced from the touch sensitive surface of the acoustic wave switch (see col. 4, lines 10-15) when the surface actuator is in an unactuated position and the acoustic wave absorbing material contacting the touch sensitive surface of the switch actuating the acoustic wave switch in response to a force acting on the surface (18) to move the acoustic wave absorbing material contact with the touch sensitive surface of the acoustic wave switch (see col. 4, lines 35-43).

However, Weigers et al. does not disclose an actuator overlaying the touch sensitive surface. Selig et al. discloses in figs 1-4, a touch system having an actuator overlaying the touch surface (see key 24, fig. 1, 4, see abstract, see col. 5, lines 48-51).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the using of the actuator disposed over the touch screen as taught by Selig et al. into the system of Chatigny et al. because this would be suitable modified for this type of touch screen to interrupt the acoustic signal by using the individual keys and also provide tactile feedback as desired to the user (see col. 4, lines 24-29).

Regarding claims 25-26, 28, Chatigny et al. does not disclose the actuator is a defomable dome and is a truncated dome, and the actuator includes a plunger extending through an aperture in a metal plate.

Selig et al. discloses in fig. 4, the actuator is a defomable dome and is a truncated dome (see fig. 4), and the actuator includes a plunger extending through an aperture in a metal plate (see figs. 6, 8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the actuator is a deformable dome and is a truncated dome, and the actuator includes a plunger extending through an aperture in a metal plate as taught by Selig into the system of Chatigny et al. because this would be suitable modified for this type of touch screen to interrupt the acoustic signal by using the individual keys and also provide tactile feedback as desired to the user (see col. 4, lines 24-29).

Allowable Subject Matter

3. Claim 27 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter: None of the cited art teaches or suggests a feedback mechanism for an acoustic wave switch as recited in claim 24, wherein the actuator includes a rocker having a pivot with a magnet mounted on the rocker on a first side of the pivot to hold the actuator in an actuated position and the magnet returns the actuator to the unactuated position when force is removed.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number is (571) 272-7698. The examiner can normally be reached on MON-FRI, FROM 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PATRICK N. EDOUARD
SUPERVISORY PATENT EXAMINER

Kimnhung Nguyen
February 22, 2006